

AMENDMENTS TO THE DRAWINGS

The attached sheets of drawings include changes to FIG. 2, and replace the original sheets including FIG. 2.

In FIG. 2, first part 3 has been amended to add equipment to form and adjust the signal 31, and control devices 32. These amendments are supported by at least the paragraph at page 2, lines 9-20 and the paragraph at page 3, lines 13-15 of the application as filed and as currently amended. No new matter has been added to the application by these amendments.

Attachment: Replacement Sheet

REMARKS

Status of the Claims

Following entry of the accompanying amendments, claims 8, 9, 12, and 13 will stand for consideration, wherein claim 8 has been amended.

Drawing Objections

The drawings have been objected to as failing to show "signal shaping and adjustment devices" as recited in the claims.

An appropriate amendment to the drawings with a corrected drawing sheet is submitted herewith.

Claim Rejections – 35 U.S.C. 103

Claims 8-9 and 12

Claims 8-9 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's admitted prior art (AAPA), in view of Lesguillier, et al., U.S. Patent No. 6,727,804 (hereinafter "Lesguillier"), in further view of Brown, et al., U.S. Patent No. 7,088,972 (hereinafter "Brown"). This rejection is respectfully traversed, although independent claim 8 has been amended as discussed below.

Claim 8, as amended, recites an improvement to a transmitter apparatus for sending a data transmission over power lines of an electrical power network, comprising,

wherein the transmitter apparatus for sending the data transmission signal over power lines of the electrical power network is divided and physically separated into at least a first part and a second part connected by one of a signal cable, an optical fiber, and a wireless connection, said first part including at least the control devices, one of said first and second part including the signal shaping and adjustment devices for generating the data transmission signal, and said second part including at least the signal amplifier, a

connecting unit for coupling the data transmission signal to the electrical power network, and the connecting cable connecting said second part at least near to phase and zero rails or to a wall outlet of the electrical power network;

wherein the first part steers operation of the second part over the one of the signal cable, the optical fiber, and the wireless connection; and

wherein the length of the connecting cable is under 5 m.

AAPA, in Fig. 1 and the related description, shows functions of the first part and the second part being in the same apparatus enclosure, and describes the related impact being attenuation of the data transmission signal. It is submitted that neither Lesguillier nor Brown add anything that addresses the attenuation problem of AAPA where the functions of the first part and the second part are in the same apparatus enclosure.

Lesguillier relates to a power line communication system and method. However, as conceded in the Office Action, Lesguillier does not disclose a transmitter apparatus divided and separated into a first part and a second part in separate boxes connected by one of a signal cable, an optical fiber, and a wireless connection. Lesguillier discloses that a transmitter (1) and an adjacent receiver (9) are both provided on the same printed circuit board or in the same box. Column 3, lines 5-8.

Additionally, Figures 2a and 2b of Lesguillier, cited in the Office Action, are circuit diagrams, not representative of physically separate parts connected by one of a signal cable, an optical fiber, and a wireless connection, as recited in independent claim 8. For instance, the "lines" between transmitter (1) of Figures 2a and 2b of Lesguillier would be thin Cu foils on a single printed circuit board, which would not be reasonably interpreted by one of ordinary skill in the art as "one of a signal cable, an optical fiber, and a wireless connection" between physically separate parts.

As discussed in response to the previous Office Action, Brown concerns "an adaptive data communication microwave transmitter having a distributable architecture of modular components, ... to provide substantial improvement in flexibility of use ..." (col. 1, lines 16-24). The distributed data transmitter of Brown is directed at "inflexible characteristics" (i.e., data throughputs, data rates, deviations, spectrums, analog

modulations, power capacity, etc.) and physical size considerations (e.g., in a flight vehicle), of prior art microwave transmitters.

A reference is considered analogous, and, therefore, available for use in an obviousness rejection if it is either (1) within the field of the inventor's endeavor, or (2) reasonably pertinent to the particular problem with which the inventor was involved. In re Deminski, 796 F.2d 436, 442 (Fed. Cir. 1986).

Brown does not relate in any way to a transmitter apparatus for sending a data transmission over power lines of an electrical power network (i.e., Power Line Communication (PLC)) because the power considerations described therein relate only to powering the transmitter and not using the power lines as actual communication connections. Brown is not within the field of the inventor's endeavor because Brown does not relate in any way to Power Line Communication. Further, Brown is not "reasonably pertinent" to attenuation of a data transmission signal in a Power Line Communication system. Thus, it is respectfully and emphatically submitted that Brown is not an analogous reference for use in rejecting claim 8.

However, even if Brown were, *arguendo*, "reasonably pertinent" to attenuation of a data transmission signal in a Power Line Communication system, Brown does not provide a disclosure that remedies the deficiencies of Lesguillier.

It is alleged in the Office Action that "Brown teaches a housing associated structure for holding transmitter halves wherein the length of the connecting cable is under 5m (see for example end to end distribution being less than 5m and 1m, col. 3 lines 45-55)." Office Action, pages 4-5.

The cited passage of Brown states:

Additionally, each distinct module or submodule of the DTXR is received in a housing adapted to further enhance modularity and distributability with standardized mechanical and electrical connectors, thereby advantageously allowing for substantially any distributed or co-located physical arrangement of the housings, including stacking, end-to-end, side-to-side, or any combination thereof.

The cited passage of Brown does not remedy the deficiencies of Lesguillier with respect to amended independent claim 8 because "stacking, end-to-end, side-to-side, or

any combination thereof" using standardized mechanical and electrical connectors cannot be reasonably interpreted as connection of physically separate (i.e., not stacked, end-to-end, or side-to-side) parts via one of a signal cable, and optical fiber, and a wireless connection.

Accordingly, neither AAPA nor Lesguillier nor Brown, however combined, discloses the aforementioned features of the transmitter apparatus recited in amended independent claim 8. Thus, reconsideration and withdrawal of the rejection of amended independent claim 8 is respectfully requested.

Claims 9 and 12 depend from amended independent claim 8, and are allowable for at least the reasons provided in support of the allowability of amended independent claim 8.

Claim 13

Claim 13 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's admitted prior art (AAPA), in view of Lesguillier, in view of Brown, and further in view of Carson, et al., U.S. Patent No. 7,007,305 (hereinafter "Carson").

Claim 13 depends from amended independent claim 8, and is allowable over the combination of AAPA and Brown for the reasons discussed above with respect to claim 8.

Carson is cited as teaching "the use of a PLC system and transmitter (50 and 60) which can be connected to 3 phase rails (col. 6, lines 10-20) at another connection point of a network cable.

Carson provides "a repeater amplifier circuit for boosting weak control signals on a PLC network, with noise discrimination and signal firewall protection" (col. 1, lines 9-12). The repeater amplifier circuit of Carson only repeats with greater voltage amplitude received, weak PLC signals being transmitted to an electric network. It is respectfully submitted that Carson does not add anything that would remedy the aforementioned deficiencies in the combination of AAPA and Brown. Accordingly, favorable reconsideration and withdrawal of the rejection of claim 13 are respectfully requested.

Conclusion

In light of the Amendments and Remarks, favorable reconsideration of this application as amended is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicant's undersigned representative at the address and telephone number indicated below.

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Respectfully submitted,

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